WHAT IS CLAIMED IS:

1. A method of manufacturing a heat pipe construction, comprising the steps of:

providing a tubular pipe having at least one open end;

forming a thermally conductive material around said tubular pipe;

filling said tubular pipe with heat pipe media via said at least one open end; and closing said at least one end with said heat pipe media sealed therein.

- 2. The method of Claim 1, wherein said step of providing a tubular pipe comprises providing a tubular pipe manufactured of metal.
- 3. The method of Claim 1, wherein said step of forming a thermally conductive material around said tubular pipe comprises overmolding a thermally conductive polymer composition around said tubular pipe.
- 4. The method of Claim 1, wherein said step of forming a thermally conductive material around said tubular pipe comprises casting a thermally conductive metallic material around said tubular pipe.
- 5. The method of Claim 1, further comprising: insert molding heat dissipating elements in said thermally conductive material around said tubular pipe.
- 6. The method of Claim 4, wherein said step of casting a thermally conductive metallic material around said tubular pipe comprises casting aluminum around said tubular pipe.
- 7. The method of Claim 1, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with water.
- 8. The method of Claim 1, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with ammonia.

9. A method of manufacturing a heat pipe construction, comprising the steps of:

providing a tubular pipe with an open end;

casting a metallic material around said tubular pipe leaving said open end free of metallic material;

filling said tubular pipe with heat pipe media via said open end; and closing said open end with said heat pipe media sealed therein.

- 10. The method of Claim 9, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with water.
- 11. The method of Claim 9, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with ammonia.
- A method of manufacturing a heat pipe construction, comprising the steps of: providing a tubular pipe with an open end;

open end free of polymer composite material;

filling said tubular pipe with heat pipe media via said open end; and closing said open end with said heat pipe media sealed therein.

- 13. The method of Claim 12, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with water.
- 14. The method of Claim 12, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with ammonia.